

IN THE CLAIMS

1. (Currently amended) An anticancer composition comprising a therapeutically effective amount of proteoglycan extract ~~of algae and/or from Spirulina with or without~~ a pharmaceutically acceptable carrier, wherein the proteoglycan extract ~~of algae from Spirulina~~ is prepared by the following steps of:

- a) dissolving a dry powder of blue-green algae ~~powdered Spirulina~~ in 5-20 times water by weight, and ~~conducting cellular walls breaking breaking the Spirulina cell walls;~~
- b) heating a solution obtained from step a) at 60°-100°C, and cooling the heated solution to separate a liquid phase from the solution;
- c) adjusting pH of said liquid phase to less than 7, and filtering said liquid phase to obtain a filtrate; and
- d) adjusting the ~~filter~~ filtrate to pH 7[[],] and concentrating the filtrate,
~~, and drying if necessary.~~

2. (Canceled)

3. (Currently amended) The composition according to claim 1, wherein said water in step a) is used as 8-15 times ~~as that by weight~~ of said dry powder powdered Spirulina.

4. (Currently amended) The composition according to claim 3, wherein said water in step a) is used as 10 times ~~as that of~~ by weight of said dry powder powdered Spirulina.

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5. (Original) The composition according to claim 1, wherein said step b) is conducted at a temperature of 80°C-95°C.

6. (Original) The composition according to claim 5, wherein said step b) is conducted at a temperature of 90°C.

7. (Currently amended) The composition according to claim 1, wherein said liquid phase obtained in step c) is adjusted to pH 3.8-4.2.

8. (Currently amended) A hemogram-improving composition comprising a therapeutically effective amount of proteoglycan extract ~~of algae and/or from Spirulina with or without~~ a pharmaceutically acceptable carrier, wherein the proteoglycan extract ~~of algae from Spirulina~~ is prepared by the following steps of:

- a) dissolving a dry powder ~~of blue-green algae powdered Spirulina~~ in 5-20 times water by weight, and ~~conducting cellular walls breaking~~ ~~breaking the Spirulina cell wall~~;
- b) heating a solution obtained from step a) at 60°-100°C, and cooling ~~the heated solution~~ to separate a liquid phase from the solution;
- c) adjusting pH of said liquid phase to less than 7, and filtering said liquid phase to obtain a filtrate; and
- d) adjusting the filter filtrate to pH 7[[],] and concentrating the filtrate,
~~and drying if necessary~~.

9. (Canceled)

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10. (Currently amended) The composition according to claim 8, wherein said water in step a) is ~~used as~~ 8-15 times ~~as that by weight~~ of said dry powder powdered Spirulina.

11. (Currently amended) The composition according to claim 10, wherein said water in step a) is ~~used as~~ 10 times ~~as that by weight~~ of said dry powder powdered Spirulina.

12. (Original) The composition according to claim 8, wherein said step b) is conducted at a temperature of 80°C-95°C.

13. (Original) The composition according to claim 12, wherein said step b) is conducted at a temperature of 90°C.

14. (Currently amended) The composition according to claim 8, wherein said liquid phase obtained in step c) is adjusted to pH 3.8-4.2.

15. (Currently amended) An anti-irradiation composition comprising a therapeutically effective amount of proteoglycan extract ~~of algae and/or from Spirulina with or without~~ a pharmaceutically acceptable carrier, wherein the proteoglycan extract ~~of algae from Spirulina~~ is prepared by the following steps of:

a) dissolving a dry powder ~~of blue-green algae~~ powdered Spirulina in 5-20 times water by weight, and ~~conducting cellular walls breaking~~ breaking the Spirulina cell walls;

b) heating a solution obtained from step a) at 60°-100°C, and cooling the heated solution to separate a liquid phase from the solution;

- c) adjusting pH of said liquid phase to less than 7, and filtering said liquid phase to obtain a filtrate; and
- d) adjusting the filter filtrate to pH 7[[],] and concentrating the filtrate,
~~and drying if necessary.~~

16. (Cancelled)

17. (Currently amended) The composition according to claim 15, wherein said water in step a) is ~~used as~~ 8-15 times ~~as that~~ by weight of said dry powder powdered Spirulina.

18. (Currently amended) The composition according to claim 17, wherein said water in step a) is ~~used as~~ 10 times ~~as that~~ by weight of said dry powder powdered Spirulina.

19. (Original) The composition according to claim 15, wherein said step b) is conducted at a temperature of 80°C-95°C.

20. (Original) The composition according to claim 19, wherein said step b) is conducted at a temperature of 90°C.

21. (Currently amended) The composition according to claim 15, wherein said liquid phase obtained in step c) is adjusted to pH 3.8-4.2.

22. (Currently amended) A DNA-repairing composition comprising a therapeutically effective amount of proteoglycan extract ~~of algae and/or from~~

Spirulina with or without a pharmaceutically acceptable carrier, wherein the proteoglycan extract of algae from Spirulina is prepared by the following steps of:

- a) dissolving a dry powder of blue green algae powdered Spirulina in 5-20 times water by weight, and conducting cellular walls breaking breaking the Spirulina cell walls;
- b) heating a solution obtained from step a) at 60°-100°C, and cooling the heated solution to separate a liquid phase from the solution;
- c) adjusting pH of said liquid phase to less than 7, and filtering said liquid phase to obtain a filtrate; and
- d) adjusting the filter filtrate to pH 7[1,] and concentrating the filtrate,
and drying if necessary.

23. (Canceled)

24. (Currently amended) The composition according to claim 22, wherein said water in step a) is used as 8-15 times as that by weight of said dry powder powdered Spirulina.

25. (Currently amended) The composition according to claim 24, wherein said water in step a) is used as 10 times as that by weight of said dry powder powdered Spirulina.

26. (Original) The composition according to claim 22, wherein said step b) is conducted at a temperature of 80°C-95°C.

27. (Original) The composition according to claim 26, wherein said step b) is conducted at a temperature of 90°C.

28. (Currently amended) The composition according to claim 22, wherein said liquid phase obtained in step c) is adjusted to pH 3.8-4.2.

29. (Currently amended) An antivirus composition comprising a therapeutically effective amount of proteoglycan extract ~~of algae and/or from Spirulina with or without~~ a pharmaceutically acceptable carrier, wherein the proteoglycan extract ~~of algae from Spirulina~~ is prepared by the following steps of:

a) dissolving a dry ~~powder of blue green algae powdered Spirulina~~ in 5-20 times water by weight, and ~~conducting cellular walls breaking~~ ~~breaking the Spirulina cell walls;~~

e) b) heating a solution obtained from step a) at 60°-100°C, and cooling to separate a liquid phase from the solution;

c) adjusting pH of said liquid phase to less than 7, and filtering said liquid phase to obtain a filtrate; and

d) adjusting the filter filtrate to pH 7[[],] and concentrating the filtrate,
~~and drying if necessary.~~

30. (Canceled)

31. (Currently amended) The composition according to claim 29, wherein said water in step a) is ~~used as~~ 8-15 times ~~as that~~ by weight of said dry ~~powder powdered Spirulina~~.

32. (Currently amended) The composition according to claim 31, wherein said water in step a) is used as 10 times as that by weight of said dry powder powdered Spirulina.

33. (Original) The composition according to claim 29, wherein said step b) is conducted at a temperature of 80°C-95°C.

34. (Original) The composition according to claim 33, wherein said step b) is conducted at a temperature of 90°C.

35. (Currently amended) The composition according to claim 29, wherein said liquid phase obtained in step c) is adjusted to pH 3.8-4.2.

36. (Currently amended) An immunoenhancing composition comprising a therapeutically effective amount of proteoglycan extract of algae and/or from Spirulina with or without a pharmaceutically acceptable carrier, wherein the proteoglycan extract of algae from Spirulina is prepared by the following steps of:

- a) dissolving a dry powder of blue-green algae powdered Spirulina in 5-20 times water by weight, and conducting cellular walls breaking breaking the Spirulina cell walls;
- b) heating a solution obtained from step a) at 60°-100°C, and cooling the heated solution to separate a liquid phase from the solution;
- c) adjusting pH of said liquid phase to less than 7, and filtering said liquid phase to obtain filtrate; and
- d) adjusting the filter filtrate to pH 7[[],] and concentrating the filtrate, and drying if necessary.

37. (Canceled)

38. (Currently amended) The composition according to claim 36, wherein said water in step a) is ~~used as~~ 8-15 times ~~as that by weight~~ of said dry powder powdered Spirulina.

39. (Currently Amended) The composition according to claim 38, wherein said water in step a) is ~~used as~~ 10 times ~~as that by weight~~ of said dry powder powdered Spirulina.

40. (Original) The composition according to claim 36, wherein said step b) is conducted at a temperature of 80°C-95°C.

41. (Original) The composition according to claim 40, wherein said step b) is conducted at a temperature of 90°C.

42. (Currently amended) The composition according to claim 36, wherein said liquid phase obtained in step c) is adjusted to pH 3.8-4.2.

43. (Currently amended) A dendrite-like-cell-activating composition comprising a therapeutically effective amount of proteoglycan extract of algae and/or from Spirulina with or without a pharmaceutically acceptable carrier, wherein the proteoglycan extract of algae from Spirulina is prepared by the following steps of:

- a) dissolving a dry powder of blue-green algae powdered Spirulina in 5-20 times water by weight, and ~~conducting cellular walls breaking~~ breaking the Spirulina cell walls;
- b) heating a solution obtained from step a) at 60°-100°C, and cooling the heated solution to separate a liquid phase from the solution;
- c) adjusting pH of said liquid phase to less than 7, and filtering said liquid phase to obtain a filtrate; and
- d) adjusting the ~~filter~~ filtrate to pH 7[[],] and concentrating the filtrate,
~~, and drying if necessary.~~

44. (Cancelled)

45. (Currently amended) The composition according to claim 40 43, wherein said water in step a) is used as 8-15 times ~~as that by weight~~ of said dry powder powdered Spirulina.

46. (Currently amended) The composition according to claim 38 45, wherein said water in step a) is used as 10 times ~~as that by weight~~ of said dry powder powdered Spirulina.

47. (Currently amended) The composition according to claim 36 43, wherein said step b) is conducted at a temperature of 80°C-95°C.

48. (Currently amended) The composition according to claim 37 47, wherein said step b) is conducted at a temperature of 90°C.

49. (Currently amended) The composition according to claim 36 43, wherein said liquid phase obtained in step c) is adjusted to pH 3.8-4.2.

50. (Currently amended) A process for preparing a proteoglycan extract of algae from Spirulina, including the following steps of:

- a) dissolving a dry ~~powder of blue-green algae powdered Spirulina~~ in 5-20 times water by weight, and ~~conducting cellular walls breaking~~ breaking the Spirulina cell walls;
- b) heating a solution obtained from step a) at 60°-100°C, and cooling the heated solution to separate a liquid phase from the solution;
- c) adjusting pH of said liquid phase to less than 7, and filtering said liquid phase to obtain a filtrate; and
- d) adjusting the filter filtrate to pH 7[[,] and concentrating the filtrate, and drying if necessary.

51. (Canceled)

52. (Currently amended) The process according to claim 50, wherein said water in step a) is used as 8-15 times as that by weight of said dry powder powdered Spirulina.

53. (Currently amended) The composition process according to claim 52, wherein said water in step a) is used as 10 times as that by weight of said dry powder powdered Spirulina.

54. (Original) The process according to claim 50, wherein said step b) is conducted at a temperature of 80°C-95°C.

55. (Currently amended) The composition process according to claim 54, wherein said step b) is conducted at a temperature of 90°C.

56. (Currently amended) The composition process according to claim 50, wherein said liquid phase obtained in step c) is adjusted to pH 3.8-4.2.

57. (New) A composition comprising a proteoglycan extract from Spirulina with or without a pharmaceutically acceptable carrier, wherein the proteoglycan extract from Spirulina is prepared by the following steps of:

- a) dissolving a dry powdered Spirulina in 5-20 times water by weight, and breaking the Spirulina cell walls;
- b) heating a solution obtained from step a) at 60°-100°C, and cooling the heated solution to separate a liquid phase from the solution;
- c) adjusting pH of said liquid phase to less than 7, and filtering said liquid phase to obtain a filtrate; and
- d) adjusting the filtrate to pH 7 and concentrating the filtrate.

58. (New) The composition according to claim 57, wherein said water in step a) is 8-15 times by weight of said dry powdered Spirulina.

59. (New) The composition according to claim 58, wherein said water in step a) is 10 times by weight of said dry powdered Spirulina.

60. (New) The composition according to claim 57, wherein said step b) is conducted at a temperature of 80°C-95°C.

61. (New) The composition according to claim 60, wherein said step b) is conducted at a temperature of 90°C.

62. (New) The composition according to claim 57, wherein said liquid phase obtained in step c) is adjusted to pH 3.8-4.2.

63. (New) The composition according to claim 57, wherein step d) further comprises drying the filtrate.

64. (New) The composition according to claim 1, wherein step d) further comprises drying the filtrate.

65. (New) The composition according to claim 8, wherein step d) further comprises drying the filtrate.

66. (New) The composition according to claim 15, wherein step d) further comprises drying the filtrate.

67. (New) The composition according to claim 22, wherein step d) further comprises drying the filtrate.

68. (New) The composition according to claim 29, wherein step d) further comprises drying the filtrate.

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69. (New) The composition according to claim 36, wherein step d) further comprises drying the filtrate.

70. (New) The composition according to claim 43, wherein step d) further comprises drying the filtrate.

71. (New) The composition according to claim 50, wherein step d) further comprises drying the filtrate.